

SUBJECT REQUIREMENT	LOCATION IN APPLICATION COMMENTS
<p>PART D PROCESS INFORMATION</p> <p>This part should include details of (1) the storage and/or treatment process(s), and (2) each hazardous waste unit to be utilized for these processes. Provide the technical design calculations, drawings and specifications for every process and unit. All design information submitted must be certified by a professional engineer registered in the Commonwealth of Kentucky.</p> <p>D-1 <u>Containers</u> 401 KAR 34:180 & 401 KAR 38:150</p> <p>D-1a <u>Container Management</u> 401 KAR 34:180</p> <ul style="list-style-type: none"> • Type of containers, construction material (including liners, if applicable), and manufacturer's specifications • Demonstration/statement that the wastes to be placed is compatible with the container/liner material • Maximum number, dimensions, and volume of each type of container. • Handling procedures (so as to avoid rupturing or leaking) • Machinery/equipment and procedures used to move containers • Floor layout diagram to demonstrate adequate aisle space for machinery, inspections, and to meet applicable codes (i.e., fire) • Statement that waste containers will always be kept closed during storage except when adding or removing waste • A sample of markings and labels placed on the containers <p>D-1b <u>Containers with Free Liquids, and/or F020, F021, F023, F026, and F027 wastes</u> 401 KAR 34:180 Section 6</p> <p>All containers that store free liquids and/or any of the above listed hazardous wastes must have a containment system per 401 KAR 34:180 Section 6(1) and (4)</p> <p>D-1b(1) <u>Basic Design Parameters, Dimensions, and Materials of Construction of the Containment System</u> 401 KAR 34:180 Section 6(2)(a)</p> <p>For the containment system, provide:</p> <ul style="list-style-type: none"> • the design and materials of construction • a demonstration/statement that the liner material is compatible with the waste • a demonstration that the base will withstand the stresses from machinery and equipment used to move containers • an engineering evaluation of the structural integrity of the base (for existing units) • a demonstration/statement that the base is free of cracks or gaps • a demonstration/statement that the base is impervious to waste and precipitation 	

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<p>D-1b(2) <u>Description of How Design Promotes Drainage or How Containers are Kept From Contact With Standing Liquids in Containment System</u> 401 KAR 34:180 Section 6(2)(b)</p> <p>Provide a description of how the containment system will be designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation</p> <p style="text-align: center;">OR</p> <p>Demonstrate how the containers are elevated or otherwise protected from contact with accumulated liquids; and describe how the accumulated liquids will be managed.</p> <p>For this requirement, the applicant should describe the:</p> <ul style="list-style-type: none"> • Handling and stacking practices • Grading of base • Drainage design and removal system <p>D-1b(3) <u>Capacity of the Containment System Relative to the Number and Volume of Containers to be Stored</u> 401 KAR 34:180 Section 6(2)(c)</p> <p>Based on the floor layout diagram provided under D-1a, show that the containment system is designed with sufficient capacity to contain 10 percent of the volume of containers or the volume of the largest container, whichever is greater. The calculated containment capacity must account for the submerged portion of the containers.</p> <p>For this requirement, the application should include:</p> <ul style="list-style-type: none"> • Volume of largest container • Total volume of containers • Volume of the containment system • Capacity of run-off collection system • Estimated allowance for run-off (include geographic storm intensity/frequency data or other supporting information) <p>D-1b(4) <u>Provisions for Preventing or Managing Run-on</u> 401 KAR 34:180 Section 6(2)(d)</p> <p>Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to the 10 percent minimum to contain any run-on which might enter the system. The applicant should discuss structures used to control run-on such as:</p> <ul style="list-style-type: none"> • Containment system auxiliary structures (curbs, dikes, etc.) • Engineering grading design • Collection and removal system design capacity • Estimated allowance for run-on (include geographic storm intensity/frequency data or other supporting information) 	

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<p>D-1b(5) <u>How Accumulated Liquids Can be Analyzed and Removed to Prevent Overflow</u> 401 KAR 34:180 Section 6(2)(e)</p> <p>Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in a timely manner as is necessary to prevent overflow of the collection system.</p> <p>The following information should be included:</p> <ul style="list-style-type: none"> • How liquids will be analyzed • Removal equipment and methods (sump pump design, piping specification, location, discharge point, and capacity) • Management of accumulated liquid including prevention of overflow. <p>D-1c <u>Containers Without Free Liquids and/or F020, F021, F023, F026, and F027 wastes</u> 401 KAR 38:150 Section 2(2)(a) and 34:180 Section 6(3) and (4)</p> <p>For storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance with 34:180, Section 6(3) including:</p> <p>D-1c(1) <u>Test for Free liquids</u> 401 KAR 38:150 Section 2(2)(a)</p> <p>Demonstrate that the wastes placed in these units do not contain any free liquids. These wastes must pass the Paint Filter Test, Method 9095 in SW-846.</p> <p>D-1c(2) <u>Description of Storage Area Design and Operation to Drain and Remove Liquids or How Containers Are Kept from Contact with Standing Liquids</u></p> <p>Demonstrate that the:</p> <ul style="list-style-type: none"> • Storage area is sloped or otherwise designed and operated to drain and remove liquid resulting from precipitation, or • Containers are elevated or otherwise protected from contact with accumulated liquid. <p>D-1d <u>Requirements for Ignitable or Reactive Wastes and Incompatible Wastes</u> 34:180 Section 7 and 34:180 Section 8(3)</p> <p>Include sketches, drawings, or data demonstrating that</p> <ul style="list-style-type: none"> • Containers holding ignitable or reactive waste are located at least 15 meters (50 feet) from the facility property line per 34:180 Section 7 • Containers holding hazardous wastes incompatible with waste or material stored nearby are separated from the other materials or protected from them by means of a dike, berm, wall, or other device per 34:180 Section 8(3). • Incompatible waste will not be placed in the same container unless 34:020 Section 8(2) is complied with • Hazardous waste must not be placed in an unwashed container that previously held incompatible waste or material. 	

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<ul style="list-style-type: none"> Documentation of compliance with 34:020 Section 8(2) based on references to published scientific or engineering literature, data from trial tests, waste analysis, or results of treatment of similar wastes by similar treatment processes and under similar operating conditions. 	